

**ABSTRACT OF THE DISCLOSURE**

An image projection system and method is presented for  
5 optically projecting an image onto a display surface with visually correct  
geometry and optimum image quality. The projection system includes an  
image processing unit for receiving the input image data and generating  
distortion-compensated image data to compensate for ensuing spatial  
distortions in the projection system, a projection light engine for receiving the  
10 distortion-compensated image data and projecting a distortion-compensated  
optical image that corresponds to the distortion-compensated image data;  
and, an optical reflection assembly comprising at least one curved mirror  
positioned in the optical path of the distortion-compensated optical image  
emerging from the projection light engine for producing a displayed optical  
15 image with reduced distortion on the display surface. The image processing  
unit distortion-compensates the input image data such that the optical and  
spatial distortions associated with the projection light engine and optical  
reflection assembly are substantially reduced in the displayed optical image.